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## Hydraulic Modeling Of Heat Dispersion In Large Lakes

Hydraulic modeling of thermal plumes from heat dispersion of steam generating power plants into large lakes has been investigated in a state of the art survey. Hydraulic modeling is an established practice for qualitative visualization of behavior and quantitative estimates of flow such as velocity, depth and pressure. In this work, case studies of hydraulic models are described for four major generating plants. Information and maps of the thermal distribution are included in the case studies.

The study includes fundamental laboratory analysis of non-buoyant jets, submerged buoyant jets, buoyant surface jets, and their mathematical representation. The status of hydraulic modeling of thermal plumes is summarized by the general requirements for plume models, the practical considerations in hydraulic modeling, the capability for hydraulic modeling and the requirements for future model studies.

This information should be of interest to agencies involved in thermal pollution control.

### Note:

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